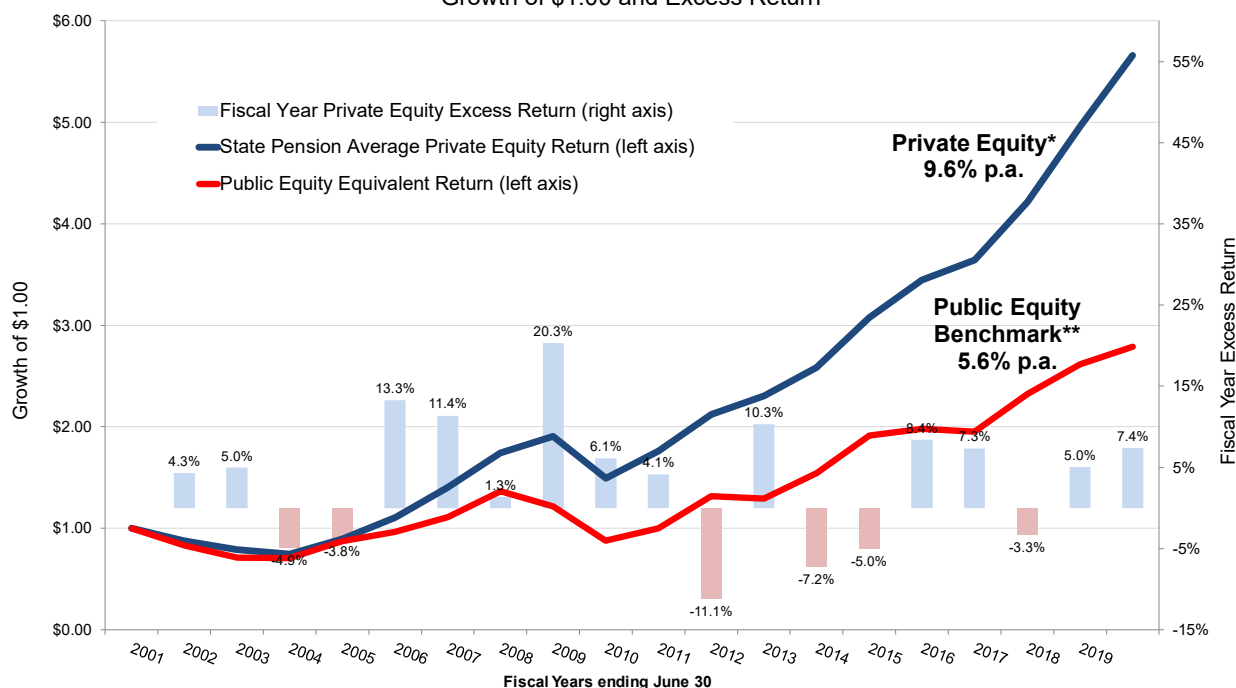


Long-Term Returns on Private Equity¹

March 5, 2020

*Our updated study of state pension performance, covering fiscal years 2001 to 2019, finds that private equity allocations produced a net **9.6%** annualized return over the 19-year study period, or **4.0% above** the 5.6% annualized return earned by a public equity benchmark. Contrary to recent industry narrative, our study finds no convergence between private and public equity performance.*

Exhibit 1: Net Private Equity Performance among State Pensions
Covering 19 Years starting June 30, 2000 (Fiscal 2001) and ending June 30, 2019
Growth of \$1.00 and Excess Return



* An equal-weighted average of all state funds who reported private equity returns in annual CAFRs for June 30 fiscal years 2001-2019.

** A public equity benchmark weighted 70% to the Russell 3000 Index (6.1% annualized return) and 30% to the MSCI ACWI ex US Index (3.9% annualized return), with assigned weights

Private Equity Performance

Exhibit 1 plots cumulative returns² for the Private Equity Composite and Public Equity Benchmark. Annualized returns for the entire 19-year period are reported. The 9.6% annualized return for private equity for the entire 19-year period is impressive compared to the 5.6% return for the Public Equity Benchmark and exceeds the 3% annual premium or excess return generally associated with return objectives for private equity. Also shown in Exhibit 1 are bars representing individual fiscal year return differences (“excess returns”) between the Private Equity Composite and Public Equity Benchmark.

¹ Our earlier private equity performance study was titled “An Examination of Private Equity Performance among State Pensions, 2002-2016, (August 2017).

² Cumulative returns are presented in Exhibit 1 using a “Growth of \$1.00” scale, measuring how an initial \$1.00 investment would have grown if it earned the average private equity return of reporting state systems or the Public Equity Benchmark return.

Study Data and Design

We draw our findings from data provided in Comprehensive Annual Financial Reports (“CAFRs”) published by 94 state pension systems. We select this data source because, unlike commonly used commercial universes, it is a closed group with no selection biases, and represents actual results achieved by large institutional investors. The list of 94 is narrowed to 65 state systems that use the same June 30 fiscal year-end date to achieve consistent performance measurement periods. The list is reduced again to 53 state systems that reported private equity returns for all or part of the study period. Twenty (20) of the 53 state systems operated private equity portfolios for all 19 fiscal years. At June 30, 2019 the reported total value of all private equity in our study equaled \$282 billion, representing 10.2% of \$2.8 trillion in total assets held by the 53 state systems.

The study period was selected partly for ease of data collection but also because it covers two full market cycles, encompassing two bear markets (fiscal years 2001-03 and 2008-09) and two bull markets (fiscal years 2004-07 and 2010-19). We create a “Private Equity Composite” return series calculated by taking the average of all state systems reporting private equity portfolio returns for that fiscal year. The number of state systems included in the yearly average grew steadily over the study period from 20 to 53.

Most state systems have a private equity objective to outperform public equity by some percentage point amount, the most frequent amount being 300 basis points (3%), net of all fees. The 3% incremental return is intended to compensate investors for the added risk, loss of liquidity, and complexity associated with private equity. Different investors have different expectations for the appropriate return spread for private equity over public equity. The equity index used to represent public equity varies as well and we find some state systems targeting a U.S. benchmark like the S&P 500 or Russell 3000 Index and others using a global equity index like the MSCI ACWI ex US Index.³ We create a “Public Equity Benchmark” by calculating a weighted average of the Russell 3000 Index (70%) and the MSCI ACWI ex US Index (30%), rebalanced annually. The 70% and 30% weights are, in our judgment, reflective of the typical mix of U.S. and non-U.S. private equity investments in large diversified portfolios. The weightings are confirmed through a statistical analysis of periodic state pension private equity returns as dependent variable and the Russell 3000 and MSCI ACWI ex US index returns as independent variables. Regression coefficients on the Russell 3000 and MSCI ACWI ex US variables were found to be exactly 70% and 30%, respectively.

The return calculations presented in this study follow the reporting practices of state pension systems as described in most CAFRs. Reported fiscal year private equity returns are typically *internal rates of return*, which are then linked in a *time-weighted* fashion to create multiperiod returns. The *internal rate of return* calculation is often used in measuring private equity performance in part because it represents a better measure of return when cash flows are very large in relation to portfolio values and because managers control the timing of cash flows. These two conditions are less relevant for state private equity portfolios that aggregate many underlying private equity funds. First, aggregated private equity cash flows (both inflows and outflows) tend to be modest relative to the size of the overall portfolio. Second, at the aggregate level the timing of cash flows is also controlled by the pension system itself through its “capital budgeting”. For example, a fund manager’s eagerness to distribute cash proceeds may be offset by increased new fund commitments by the pension system to preserve “vintage diversification”.

Convergence

A growing narrative is that private equity returns are failing to deliver the excess return over public equity compared to years past.⁴ Our study finds no such evidence. Private equity returns are tested for convergence through a simple regression analysis that uses fiscal private equity excess returns reported in Exhibit 1 as the dependent variable and time as the independent variable. The resultant coefficient on time (year) is a tiny minus 8 basis points which also has no statistical significance at any level. Even casual

³ MSCI ACWI ex US Index represents all global public equity markets excluding the U.S. equity market. “ACWI” is an acronym for All Country World Index.

⁴ A recent example is contained in the otherwise excellent *Bain Global Private Equity Report 2020*, recently reported on by *Pensions & Investments* under the headline “U.S. Private, Public Equity Returns Starting to Converge.”

inspection of the annual excess returns in Exhibit 1 would suggest no directionality over time. Convergence may be a legitimate investor concern, but there is no evidence of its presence today.

Conclusion

Our study focuses on the private equity performance achieved by large state pension systems over a 19 fiscal year period from 2001 to 2019. This data is different from return universe data available on individual private equity funds which ignores selection, weighting, co-investment, and other decision factors that state pensions make in managing a private equity portfolio.

The study finds that private equity produced a significant 4.0% annualized excess return over public equity. We test for any diminution of excess return over time and find no evidence of private and public return convergence.

Private equity has consistently been one of the strongest performing asset classes within state pension portfolios, a characteristic we expect to continue.

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